



## PROJECT OVERVIEW

The City of Cleveland Division of Police was awarded a FEMA Port Security Grant. This project will increase maritime and air domain awareness in the vicinity of Cleveland, Ohio. Safety and security of the Port of Cleveland will be enhanced with radar data to assist in water rescue and security operations. The project goal is to detect and transmit real-time maritime radar images of vessels and low-flying small aircraft near the Port of Cleveland using equipment installed on an existing structure near the Port of Cleveland and permit view of live images and vessel tracks on web-based computers to Cleveland Police and safety partners.

Request for Quote Proposals are due July 14, 2021, by 3:00 PM EST. A virtual preproposal conference has been scheduled for **June 29, 2021, at 12:00 PM EST**. The WebEx link can be accessed via this link below:

[Port Security Radar System Link](#)

- It is the bidder's responsibility to ensure they have all necessary information needed to offer the equipment and software that will fulfill the goal of this project.

## CURRENT EQUIPMENT

- There is no existing waterside radar system in the Port of Cleveland.



## PORT INFORMATION

The Port is located on Lake Erie in Cleveland, Ohio at approximately: 41°31'10"N, 81°41'19"W. It is approximately 580' above sea level. The Port of Cleveland is one of the largest ports on the Great Lakes. Over 20,000 jobs and \$3.5 billion in annual economic activity are tied to the roughly 13 million tons of cargo that move through Cleveland Harbor each year. Periodically in winter, Lake Erie freezes over near Cleveland, and shipping is limited in the Port area.

## MANDATORY EQUIPMENT AND REQUIREMENTS

Equipment to fulfill the project goal will consist of a radar antenna installed on a vendor selected, existing structure near the Port of Cleveland with mounting brackets, hardware, cabling and electronic equipment, and a minimum of three monitoring computers to upload the radar imagery and output that signal into the Cleveland Safety Departments and Port Authority networks.

- Vendors must bid the latest generation/version of their products and guarantee the availability of product software updates and replacement parts for 3 years.
- The radar must be capable of operating without interference from the mounting structure or nearby antennas. It is understood that interference may degrade the radar signal as well as significant wave action, water icing, or obstruction of nearby large vessels, but signal reception is expected 24 hours a day, 7 days per week.



## FCC LICENSE/PERMITTING

- The bidder shall ensure that required licensing and permitting with FCC and all regulating authorities for the entire project is approved for this project installation and operation. Specific licensing may be required to deconflict with Canadian requirements due to possible electronic interference.

## SIGNAL ENCRYPTION/CYBER SECURITY

- Bidders shall encrypt the radar data and provide necessary software to decrypt and view the radar images and prevent unauthorized access to the data.

## INSTALLATION

The bidder is responsible for the installation of the entire system purchased, including the radar, cabling, electronic equipment and the network connection to fulfill the goals of this project and labor and permitting and associated administrative costs must be included in the bid. The output of the receiving system and its subsequent interface with the Cleveland Safety Department's network must be coordinated with the Cleveland Public Safety Office of Information Technology.

- Proper grounding and lightning protection of purchased equipment is required.
- The bidder must coordinate radar installation with FAA, and Burke Airport Operations to ensure compliance with safety restrictions and minimize impact on aircraft flight and navigation systems.
- The proposed X-Band marine radar system will need to be installed at a sufficient height above ground level or above large fixed obstructions, such as existing structures to optimize the radar coverage area over the Port and Lake Erie. Radar transmitter power of 25 KW is recommended to provide small vessel



tracking out to the international border area of central Lake Erie. Also, the elevation of installation shall not result in greater blind zones of coverage due to limits of radar fan and permanent obstructions.

- Companies hired by the bidder for installation of the equipment are solely the responsibility of the bidder for all insurance requirements, work guarantees, and liability.
- The bidder and companies hired for the installation of the equipment shall verify current licensing or apply for appropriate licenses/permits from FCC, FAA, City of Cleveland, and all other required regulative authorities.
- It is required that the installation of the purchased equipment be professionally completed to current standards utilizing best practices that ensure the equipment operates at peak performance and delivers the highest quality radar imagery the equipment is capable of delivering at all times.
- To minimize time needed to complete this project, the radar system shall be an off-the-shelf proven system, optimally already installed and functioning in the Great Lakes region and be pre-approved by the FCC.
- Preferred bids will demonstrate functionality with existing radar systems in the Great Lakes region and a capability to be integrated with existing and future radar system feeds, both shore-based and ship-based to provide wider area radar coverage. Also, preferred is the bid demonstrating prior experience with other recent FEMA Port Security Grant projects.
- The installed Radar System must be capable of tracking vessels to the Lake Erie international border closest to the Port of Cleveland and integrate existing AIS data, weather graphic information and mapping data. System maintenance, tuning, technical support, and training to users will be provided by the bidder for three years upon award of the contract.



- An interactive digital dashboard solution shall be incorporated into the radar system output. This dashboard will have a digital map-based real-time display of vessels and low-flying aircraft. Additionally, a historical track will be available for selected vessels and aircraft of interest to the user. The system must be capable of storing at least 30 days of vessel and aircraft data for data retrieval searches. This data must be exportable for incident response and reports to the user.
- Project partners with Cleveland Division of Police include Port of Cleveland, Ohio Department of Natural Resources, United States Coast Guard Station Cleveland Harbor, and First Energy Stadium Security.
- Radar system preventative and corrective maintenance, tuning, calibration, and technical support shall be provided to the Cleveland Division of Police and other users for a three-year period commencing on contract award.

## TRAINING

The successful bidder shall train Cleveland police members, Cleveland Public Safety Office of Information Technology personnel and others as necessary, on the use, care and maintenance of the purchased equipment and software. Train-the-trainer options are encouraged.

## TIME SCHEDULE

This grant requires installation and operation by December 31, 2021. The bidder shall develop a timeline of work and delivery of services with a minimum: Site selection/Installation plan, EHP written/submitted for approval, site installation, training for users/maintainers, and completion of project delivery/commencement of operations. Recommended installation time to be within 90 days of receipt of contract award.



## WARRANTY

Purchased equipment and installation must be warrantied to include technical support for three years.

Warranty commencement shall begin upon installation of purchased equipment and verification of functionality to these specifications.

- Verification will include testing of the signal from the radar and viewing ability of the imagery using the Cleveland Safety Department's network and vendor provided hardware and software.
- Installation inspection coordinated by the manager of the radar mounting site facility manager (installation site owner/management).

## QUOTE/BID SELECTION

A company overview report is required listing years in the industry, full range of services offered, and experience with government agencies and local government entities to include referrals to recent and similar projects.

Include a list of project manager, along with other principal team members. Additionally, identify all subcontractors with the same information.

Must include the fee structure for installation, labor and testing of equipment and network connectivity, user training, annual maintenance and any other subscription fees. The Bidder must meet all requirements specified herein to complete the project and the price for services and equipment must be fixed and listed in detail. Bidder selection will be based on the past performance of services and experience in comparable projects, presentation of a clear and supported project plan, and the ability to remain within the Port Security Grant financial award amount within the Grant performance period.



A demonstration of current live radar systems will be prepared by each bidder to the Cleveland Public Safety project review team.

**Quotes for Service should be sent by July 14, 2021 to:**

[help.safety@clevelandohio.gov](mailto:help.safety@clevelandohio.gov) subject line Police – Port Grant RFQ

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